HP 3000 Computer Systems

# HP 3000 SERIES 39/40/42/44/48

## Upgrade Manual

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# PRINTING HISTORY

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First Edition . . . . . MAR 1984

# PREFACE

This manual contains procedures for upgrading the firmware of existing Series 42 and 48 computer systems, for upgrading a Series 39 computer system to a High Performance Series 39 system, and for upgrading Series 40/44 computer systems to Series 42/48 systems. Sections I-IV of the manual describe the following four upgrade products:

Series 42/48 Firmware Upgrade, product no. 30400A (Section I)
Series 39 Disc Cache Upgrade, product no. 30539B (Section II)
Series 40 to 42 Field Upgrade, product no. 30542B (Section III)
Series 44 to 48 Field Upgrade, product no. 30548B (Section IV)

Additional Hewlett-Packard manuals required to perform the procedures are:

HP 3000 Series 40/44 Computer Systems Memory Add-On Installation Manual, P/N 30092-90002

HP 3000 Series 44 CMP/System Selftest Manual, P/N 30090-90005

HP 3000 Series 44 Pronto Memory Diagnostic Manual, P/N 30092-90001

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# SERIES 42/48 FIRMWARE UPGRADE

SECTION I

## INTRODUCTION

The Series 42/48 Firmware Upgrade, product no. 30400A, upgrades the firmware in existing Series 42 and 48 computer systems to support MPE-V/E. Existing computers are configured with either the Control and Program Store (CPS) PCA (P/N 30090-60075) or the Prom Control Store (PCS) and Control (CTL) PCAs. The new firmware is installed on a new CPS-E PCA (P/N 30090-60081), which replaces either the CPS PCA or the PCS and CTL PCAs. The following paragraphs describe the procedures for swapping the PCAs.

## INSTALLING CPS-E PCA IN SERIES 42 SYSTEMS

The Series 42 Firmware Upgrade Kit includes the CPS-E PCA (P/N 30090-60081), an upgrade sticker marked "CPS-E Installed", and an aluminum label, which relabels the appropriate card cage slots to reflect the changes in PCA configuration if replacing the PCS and CTL PCAs. If the existing computer has a CPS PCA, discard the aluminum label. No tools are needed to perform this procedure.

1. Verify that system operator has backed up system, all users are logged off system, and system operator has performed MPE system shutdown before powering down system.

2. Set POWER switch, located at lower right-hand corner on front of computer cabinet, to OFF. Disconnect AC line cord from power source.

3. Remove cover at back of computer cabinet by turning key clockwise, pulling cover slightly forward, and lifting cover off bottom of cabinet.

**CAUTION**

ESD protection requires the use of a grounded wrist strap when handling PCAs.

**NOTE**

The existing computer may have either a two- or three-PCA CPU. In steps 4 through 6, perform the procedure corresponding to the CPU configuration in the existing computer.

4. PCS and CTL PCAs installed: Two four-connector flat ribbon cables link CMP, PCS, ALU, and CTL PCAs at J1 (top edge connector) and J2 (middle edge connector), respectively. A two-connector flat ribbon cable links J3 (bottom edge connector) of ALU and CTL PCAs. Disconnect all three cables.

CPS PCA installed: Two four-connector flat ribbon cables link CMP, ALU, and CPS PCAs at J1 (top edge connector) and J2 (middle edge connector), respectively. A two-connector flat ribbon cable links J3 (bottom edge connector) of ALU and CPS PCAs. Disconnect all three cables.

5. PCS and CTL PCAs installed: Remove PCAs from slots labeled CTL (slot 11) and PCS (slot 7).

   CPS PCA installed: Remove PCA from slot labeled CPS (slot 11).

**CAUTION**

Before performing Step 6, ensure that the appropriate PCAs have been removed as described in Step 5. If the CPS-E PCA is installed with a CTL, PCS, or CPS PCA still plugged into the backplane, damage to all firmware PCAs will result at powerup.

**NOTE**

To ensure that the CPS-E PCA works properly, set the Prom Enable switch at the front of the PCA to the IN position (toward the stiffener) before performing Step 6.

6. PCS and CTL PCAs installed: Install CPS-E PCA in slot labeled CTL (slot 11).

   CPS PCA installed: Install CPS-E PCA in slot labeled CPS (slot 11).

7. Reconnect two four-connector flat ribbon cables on J1 and J2 edge connectors of respective CMP, CPS-E, and ALU PCAs. Reconnect two-connector flat ribbon cable on J3 edge connectors of CPS-E and ALU PCAs.

**NOTE**

Perform Step 8 only if the existing card cage has slots labeled PCS and CTL. Otherwise, skip to Step 9.

8. Attach aluminum label over existing card cage label, directly above slots labeled 7-12, so that it correctly identifies the new card cage configuration.

9. Reinstall back cover.

10. On back of cabinet, locate warranty and identification labels. Attach the sticker marked "CPS-E Installed" near the other labels.

11. Reconnect AC line cord to power source and power up system.

12. To verify newly installed firmware offline, execute CMP/system selftest by typing SELFTEST at CMP prompt (->). Refer to Section V of this manual for description of differences in selftest console messages between original and upgraded firmware. For additional selftest details, refer to HP 3000 Series 44 CMP/System Selftest Manual (P/N 30090-90005).

13. Using standard field return shipping procedures, return the CPS PCA or the PCS and CTL PCAs to Computer Support Division Roseville (CSR), 3645 Cincinnati Avenue, Rocklin, CA 95677. Proper return of these PCAs is necessary to maintain the CSD support pipeline.

## INSTALLING CPS-E PCA IN SERIES 48 SYSTEMS

The Series 48 Firmware Upgrade Kit consists of the CPS-E PCA (P/N 30090-60081) and an upgrade sticker. No tools are needed to perform this procedure.

1. Verify that system operator has backed up system, all users are logged off system, and system operator has performed system shutdown before powering down system.

2. Set PROCESSOR ON/OFF switch, located on inner panel at front of computer cabinet, to OFF.

3. Set MAIN POWER switch, located at lower-left rear of computer cabinet, to OFF position.

4. At rear of cabinet, open left card cage door by turning key clockwise.

**CAUTION**

ESD protection requires the use of a grounded wrist strap when handling PCAs.

**NOTE**

The existing computer may have either a two- or three-PCA CPU. In steps 5 and 6, perform the procedure corresponding to the CPU configuration in the existing computer.

5. PCS and CTL PCAs installed: Two four-connector flat ribbon cables link CMP, PCS, ALU, and CTL PCAs at J1 (top edge connector) and J2 (middle edge connector), respectively. A two-connector flat ribbon cable links J3 (bottom edge connector) of ALU and CTL PCAs. Disconnect all three cables.

   CPS PCA installed: Two four-connector flat ribbon cables link CMP, ALU, and CPS PCAs at J1 (top edge connector) and J2 (middle edge connector), respectively. A two-connector flat ribbon cable links J3 (bottom edge connector) of ALU and CPS PCAs. Disconnect all three cables.

6. PCS and CTL PCAs installed: Remove CTL PCA from slot 11 and PCS PCA from slot 13.

   CPS PCA installed: Remove CPS PCA from slot 13.

**CAUTION**

Before performing Step 7, ensure that the appropriate PCAs have been removed as described in Step 6. If the CPS-E PCA is installed with a CTL, PCS, or CPS PCA still plugged into the backplane, damage to all firmware PCAs will result at powerup.

**NOTE**

To ensure that the CPS-E PCA works properly, set the Prom Enable switch at the front of the PCA to the IN position (toward the stiffener) before performing Step 7.

7. Install CPS-E PCA in slot 13.

8. Reconnect two four-connector flat ribbon cables on J1 and J2 edge connectors of respective CMP, CPS-E, and ALU PCAs. Reconnect two-connector flat ribbon cable on J3 edge connectors of CPS-E and ALU PCAs.

9. Close card cage door and secure by turning key counterclockwise.

10. Locate warranty, FCC compliance, and UL labels on lower-left rear of computer cabinet. Attach sticker marked "CPS-E installed" to right of the FCC compliance label.

11. Power up system by setting MAIN POWER and PROCESSOR ON/OFF switches to ON.

12. To verify newly installed firmware offline, execute CMP/system selftest by typing SELFTEST at CMP prompt (->). Refer to Section V of this manual for description of differences in selftest console messages between original and upgraded firmware. For additional selftest details, refer to HP 3000 Series 44 CMP/System Selftest Manual (P/N 30090-90005).

13. Using standard field return shipping procedures, return the CPS PCA or the PCS and CTL PCAs to Computer Support Division Roseville (CSR), 3645 Cincinnati Avenue, Rocklin, CA 95677. Proper return of these PCAs is necessary to maintain the CSD support pipeline.

# SERIES 39 DISC CACHE UPGRADE

SECTION II

## INTRODUCTION

The Series 39 Disc Cache Upgrade, product no. 30539B, includes disc caching software, 512 kb of memory, and MPE-V/P. The field upgrade kit includes required Semiconductor Memory Array (SMA) PCAs.

For Option 408, the upgrade includes disc caching software, 512 kb of memory, and MPE-V/E firmware. Existing computers are configured with either the Control and Program Store (CPS) PCA (P/N 30090-60075) or the Prom Control Store (PCS) and Control (CTL) PCAs. The new firmware is installed on a new CPS-E PCA (P/N 30090-60081), which replaces either the CPS PCA or the PCS and CTL PCAs. The field upgrade kit for Option 408 includes the CPS-E PCA, required Semiconductor Memory Array (SMA) PCAs, an upgrade sticker marked "CPS-E Installed", and an aluminum label.

The following paragraphs describe the procedures for upgrading the hardware of the existing system to that of a High Performance Series 39 system.

## INSTALLING THE CPS-E PCA (OPTION 408 ONLY)

Materials from the upgrade kit used in this procedure are the CPS-E PCA (P/N 30090-60081), the sticker marked "CPS-E Installed", and an aluminum label, which relabels the appropriate card cage slots to reflect the changes in PCA configuration if replacing the PCS and CTL PCAs. If the existing computer has a CPS PCA, discard the aluminum label. No tools are needed to perform this procedure.

1. Verify that system operator has backed up system, all users are logged off system, and system operator has performed MPE system shutdown before powering down system.

2. Set POWER switch, located at lower right-hand corner on front of computer cabinet, to OFF. Disconnect AC line cord from power source.

3. Remove cover at back of computer cabinet by turning key clockwise, pulling cover slightly forward, and lifting cover off bottom of cabinet.

**CAUTION**

ESD protection requires the use of a grounded wrist strap when handling PCAs.

**NOTE**

The existing computer may have either a two- or three-PCA CPU. In steps 4 through 6, perform the procedure corresponding to the CPU configuration in the existing computer.

4. PCS and CTL PCAs installed: Two four-connector flat ribbon cables link CMP, PCS, ALU, and CTL PCAs at J1 (top edge connector) and J2 (middle edge connector), respectively. A two-connector flat ribbon cable links J3 (bottom edge connector) of ALU and CTL PCAs. Disconnect all three cables.

   CPS PCA installed: Two four-connector flat ribbon cables link CMP, ALU, and CPS PCAs at J1 (top edge connector) and J2 (middle edge connector), respectively. A two-connector flat ribbon cable links J3 (bottom edge connector) of ALU and CPS PCAs. Disconnect all three cables.

5. PCS and CTL PCAs installed: Remove PCAs from slots labeled CTL (slot 11) and PCS (slot 7).

   CPS PCA installed: Remove PCA from slot labeled CPS (slot 11).

**CAUTION**

Before performing Step 6, ensure that the appropriate PCAs have been removed as described in Step 5. If the CPS-E PCA is installed with a CTL, PCS, or CPS PCA still plugged into the backplane, damage to all firmware PCAs will result at powerup.

**NOTE**

To ensure that the CPS-E PCA works properly, set the Prom Enable switch at the front of the PCA to the IN position (toward the stiffener) before performing Step 6.

6. PCS and CTL PCA installed: Install CPS-E PCA in slot labeled CTL (slot 11).

   CPS PCA installed: Install CPS-E PCA in slot labeled CPS (slot 11).

7. Reconnect two four-connector flat ribbon cables on J1 and J2 edge connectors of respective CMP, CPS-E, and ALU PCAs. Reconnect two- connector flat ribbon cable on J3 edge connectors of CPS-E and ALU PCAs.

**NOTE**

Perform Step 8 only if the existing card cage has slots labeled PCS and CTL. Otherwise, skip to Step 9.

8. Attach aluminum label over existing card cage label, directly above slots labeled 7-12, so that it correctly identifies the new card cage configuration.

9. On back of cabinet, locate warranty and identification labels. Attach the sticker marked "CPS-E installed" near the other labels.

10. Using standard field return shipping procedures, return the CPS PCA or the PCS and CTL PCAs to Computer Support Division Roseville (CSR), 3645 Cincinnati Avenue, Rocklin, CA 95677. Proper return of these PCAs is necessary to maintain the CSD support pipeline.

## MEMORY INSTALLATION

If new SMA PCAs are included in the upgrade kit, refer to the HP 3000 Series 40/44 Computer Systems Memory Add-On Installation Manual (P/N 30092-90002) for memory installation procedures. If additional memory is not required, perform system verification procedures.

## SYSTEM VERIFICATION

1. Reinstall back cover.

2. Reconnect AC line cord to power source and power up system.

3. If new firmware has been added to the system, perform this step. Otherwise, skip to step 4. To verify newly installed firmware offline, execute CMP/system selftest by typing SELFTEST at CMP prompt (->). Refer to Section V of this manual for description of differences in selftest console messages between original and upgraded firmware. For additional selftest details, refer to HP 3000 Series 44 CMP/System Selftest Manual (P/N 30090-90005).

4. If memory has been added to system, run Pronto Memory Diagnostic to verify memory subsystem. Refer to HP 3000 Series 44 Pronto Memory Diagnostic Manual (P/N 30092-90001) for instructions.

# SERIES 40 TO 42 FIELD UPGRADE

SECTION III

## INTRODUCTION

The Series 40 to 42 Field Upgrade, product no. 30542B, includes disc caching software, 1 Mb of memory, and MPE-V/P. The field upgrade kit includes a replacement nameplate, an upgrade sticker, and required Semiconductor Memory Array (SMA) PCAs.

For Option 409, the upgrade includes disc caching software, 1 Mb of memory, and MPE-V/E firmware. Existing computers are configured with either the Control and Program Store (CPS) PCA (P/N 30090-60075) or the Prom Control Store (PCS) and Control (CTL) PCAs. The new firmware is installed on a new CPS-E PCA (P/N 30090-60081), which replaces either the CPS PCA or the PCS and CTL PCAs. The field upgrade kit for Option 409 includes the CPS-E PCA, a replacement nameplate, two upgrade stickers, required Semiconductor Memory Array (SMA) PCAs, and an aluminum label.

The following paragraphs describe the procedures for upgrading the hardware of the existing Series 40 system to that of a Series 42 system.

## INSTALLING THE CPS-E PCA (OPTION 409 ONLY)

Materials from the upgrade kit used in this procedure are the CPS-E PCA (P/N 30090-60081) and an aluminum label, which relabels the appropriate card cage slots to reflect the changes in PCA configuration if replacing the PCS and CTL PCAs. If the existing computer has a CPS PCA, discard the aluminum label. No tools are needed to perform this procedure.

1. Verify that system operator has backed up system, all users are logged off system, and system operator has performed MPE system shutdown before powering down system.

2. Set POWER switch, located at lower right-hand corner on front of computer cabinet, to OFF. Disconnect AC line cord from power source.

3. Remove cover at back of computer cabinet by turning key clockwise, pulling cover slightly forward, and lifting cover off bottom of cabinet.

**CAUTION**

ESD protection requires the use of a grounded wrist strap when handling PCAs.

**NOTE**

The existing computer may have either a two- or three-PCA CPU. In steps 4 through 6, perform the procedure corresponding to the CPU configuration in the existing computer.

4. PCS and CTL PCAs installed: Two four-connector flat ribbon cables link CMP, PCS, ALU, and CTL PCAs at J1 (top edge connector) and J2 (middle edge connector), respectively. A two-connector flat ribbon cable links J3 (bottom edge connector) of ALU and CTL PCAs. Disconnect all three cables.

   CPS PCA installed: Two four-connector flat ribbon cables link CMP, ALU, and CPS PCAs at J1 (top edge connector) and J2 (middle edge connector), respectively. A two-connector flat ribbon cable links J3 (bottom edge connector) of ALU and CPS PCAs. Disconnect all three cables.

5. PCS and CTL PCAs installed: Remove PCAs from slots labeled CTL (slot 11) and PCS (slot 7).

   CPS PCA installed: Remove PCA from slot labeled CPS (slot 11).

**CAUTION**

Before performing Step 6, ensure that the appropriate PCAs have been removed as described in Step 5. If the CPS-E PCA is installed with a CTL, PCS, or CPS PCA still plugged into the backplane, damage to all firmware PCAs will result at powerup.

**NOTE**

To ensure that the CPS-E PCA works properly, set the Prom Enable switch at the front of the PCA to the IN position (toward the stiffener) before performing Step 6.

6. Install CPS PCA in slot labeled CTL (slot 11).

   CPS PCA installed: Install CPS-E PCA in slot labeled CPS (slot 11).

7. Reconnect two four-connector flat ribbon cables on J1 and J2 edge connectors of respective CMP, CPS-E, and ALU PCAs. Reconnect two-connector flat ribbon cable on J3 edge connectors of CPS-E and ALU PCAs.

**NOTE**

Perform Step 8 only if the existing card cage has slots labeled PCS and CTL. Otherwise, skip to Step 9.

8. Attach aluminum label over existing card cage label, directly above slots labeled 7-12, so that it correctly identifies the new card cage configuration.

9. Using standard field return shipping procedures, return the CPS PCA or the PCS and CTL PCAs to Computer Support Division Roseville (CSR), 3645 Cincinnati Avenue, Rocklin, CA 95677. Proper return of these PCAs is necessary to maintain the CSD support pipeline.

## MEMORY INSTALLATION

If new SMA PCAs are included in the upgrade kit, refer to the HP 3000 Series 40/44 Computer Systems Memory Add-On Installation Manual (P/N 30092-90002) for memory installation procedures. If additional memory is not required, continue to the following upgrade procedures.

## CHANGING THE NAMEPLATE

This procedure replaces the Series 40 nameplate with a Series 42 nameplate. Tools required for this procedure are a large posidriv screwdriver, a small posidriv screwdriver, two blade screwdrivers, and a 3/16-inch nut driver.

1. Using large posidriv screw driver, loosen two black screws securing shroud at top rear of computer cabinet (above card cage).

2. Remove shroud by sliding it backwards away from front of computer cabinet.

**CAUTION**

ESD protection requires the use of a grounded wrist strap when handling PCAs.

3. Inside cabinet and behind nameplate is a small LED PCA. Using small posidriv screw driver, remove two screws securing PCA and move PCA to one side.

4. A ground wire is connected from chassis to nameplate bolt. Using 3/16-inch nut driver, remove two nuts holding ground wire to bolt. Remove flat washer and spacer.

**NOTE**

At this point, the nameplate is still held in place by double-sided tape installed at the factory. Perform Step 5 to pry the nameplate from the front panel. Pressure can be applied to the back side of the nameplate at two places: the bolt and a small slot just below the bolt.

5. Insert blade screwdriver into slot below bolt and gently push nameplate forward until lower edge of nameplate separates from front panel. Then, push nameplate bolt until top edge of nameplate separates from front panel. If nameplate is not now completely separated from front panel, push nameplate from behind with blade screwdriver. Simultaneously, using second blade screwdriver, carefully pry nameplate from front, one edge at a time, until entire nameplate is detached. Be careful not to scratch paint on front panel. Discard old nameplate.

6. Remove remnants of old tape from front panel before installing new nameplate.

7. Remove protective backing from tape on back side of new nameplate and install nameplate. Apply pressure to ensure that nameplate sticks to front panel.

8. Reinstall spacer, flat washer, ground wire, and two nuts.

9. Reinstall LED PCA.

10. Reinstall shroud by sliding it forward towards front of computer cabinet.

11. Secure shroud to cabinet by tightening two screws at top rear of cabinet.

## INSTALLING UPGRADE STICKERS

The upgrade sticker included with the standard kit reads "HP 3000 Series 42 Model 30542B". On back of cabinet, locate warranty and identification labels. Attach the upgrade sticker adjacent to the FCC compliance label.

If the CPS-E PCA has been installed (Option 409 only), the upgrade kit also includes a sticker marked "CPS-E Installed". Attach this sticker in an available space near the other labels on the back of the cabinet.

## SYSTEM VERIFICATION

1. Reinstall back cover.

2. Reconnect AC line cord to power source and power up system.

3. If new firmware has been added to the system, perform this step. Otherwise, skip to step 4. To verify newly installed firmware offline, execute CMP/system selftest by typing SELFTEST at CMP prompt (->). Refer to Section V of this manual for description of differences in selftest console messages between original and upgraded firmware. For additional selftest details, refer to HP 3000 Series 44 CMP/System Selftest Manual (P/N 30090-90005).

4. If memory has been added to system, run Pronto Memory Diagnostic to verify memory subsystem. Refer to HP 3000 Series 44 Pronto Memory Diagnostic Manual (P/N 30092-90001) for instructions.

# SERIES 44 TO 48 FIELD UPGRADE

SECTION IV

## INTRODUCTION

The Series 44 to 48 Field Upgrade, product no. 30548B, includes disc caching software, 1 Mb of memory, and MPE-V/P. The field upgrade kit includes a replacement nameplate, an upgrade sticker, and required Semiconductor Memory Array (SMA) PCAs.

For Option 410, the upgrade includes disc caching software, 1 Mb of memory, and MPE-V/E firmware. Existing computers are configured with either the Control and Program Store (CPS) PCA (P/N 30090-60075) or the Prom Control Store (PCS) and Control (CTL) PCAs. The new firmware is installed on a new CPS-E PCA (P/N 30090-60081), which replaces either the CPS PCA or the PCS and CTL PCAs. The field upgrade kit includes the CPS-E PCA, a replacement nameplate, two upgrade stickers, and required Semiconductor Memory Array (SMA) PCAs.

The following paragraphs describe the procedure for upgrading the hardware of the existing Series 44 system to that of a Series 48 system.

## INSTALLING THE CPS-E PCA (OPTION 410 ONLY)

The following procedure replaces either the CPS PCA or the PCS and CTL PCAs with the CPS-E PCA (P/N 30090-60081). No tools are needed to perform this procedure.

1. Verify that system operator has backed up system, all users are logged off system, and system operator has performed MPE system shutdown before powering down the system.

2. Set PROCESSOR ON/OFF switch, located on inner panel at front of computer cabinet, to OFF.

3. Set MAIN POWER switch, located at lower-left rear of computer cabinet, to OFF.

4. At rear of cabinet, open left card cage door by turning key clockwise.

**CAUTION**

ESD protection requires the use of a grounded wrist strap when handling PCAs.

**NOTE**

The existing computer may have either a two- or three-PCA CPU. In steps 5 and 6, perform the procedure corresponding to the CPU configuration in the existing computer.

5. PCS and CTL PCAs installed: Two four-connector flat ribbon cables link CMP, PCS, ALU, and CTL PCAs at J1 (top edge connector) and J2 (middle edge connector), respectively. A two-connector flat ribbon cable links J3 (bottom edge connector) of ALU and CTL PCAs. Disconnect all three cables.

   CPS PCA installed: Two four-connector flat ribbon cables link CMP, ALU, and CPS PCAs at J1 (top edge connector) and J2 (middle edge connector), respectively. A two-connector flat ribbon cable cable links J3 (bottom edge connector) of ALU and CPS PCAs. Disconnect all three cables.

6. PCS and CTL PCAs installed: Remove CTL PCA from slot 11 and PCS PCA from slot 13.

   CPS PCA installed: Remove CPS PCA from slot 13.

**CAUTION**

Before performing Step 7, ensure that the appropriate PCAs have been removed as described in Step 6. If the CPS-E PCA is installed with a CTL, PCS, or CPS PCA still plugged into the backplane, damage to all firmware PCAs will result at powerup.

**NOTE**

To ensure that the CPS-E PCA works properly, set the Prom Enable switch at the front of the PCA to the IN position (toward the stiffener) before performing Step 7.

7. Install CPS-E PCA in slot 13.

8. Reconnect two four-connector flat ribbon cables on J1 and J2 edge connectors of respective CMP, CPS-E, and ALU PCAs. Reconnect two- connector flat ribbon cable on J3 edge connectors of CPS-E and ALU PCAs.

9. Using standard field return shipping procedures, return the CPS PCA or the PCS and CTL PCAs to Computer Support Division Roseville (CSR), 3645 Cincinnati Avenue, Rocklin, CA 95677. Proper return of these PCAs is necessary to maintain the CSD support pipeline.

## MEMORY INSTALLATION

If SMA PCAs are included in the upgrade kit, refer to HP 3000 Series 40/44 Computer Systems Memory Add-On Installation Manual (P/N 30092-90002) for memory installation procedures. If additional memory is not required, continue to the following procedures.

## CHANGING THE NAMEPLATE

This procedure replaces the Series 44 nameplate, located on the access door at the front of the system cabinet, with a Series 48 nameplate. Tools required for this procedure are two blade screwdrivers and a 3/16-inch nut driver.

1. Open front access door by turning key clockwise.

2. Using 3/16-inch nut driver, remove two nuts holding Series 44 nameplate to access door.

**NOTE**

At this point the nameplate is still held in place by double-sided tape installed at the factory. Perform Step 3 to pry the nameplate from the access door. Pressure can be applied to the back of the nameplate near the two open, square slots that display LEDs when the door is closed.

3. Using blade screwdriver, gently push back of nameplate near one of two slots until nameplate separates from door panel on that side. Repeat this procedure for other end of nameplate. If nameplate is not now completely separated from door panel, push nameplate from behind with blade screwdriver. Simultaneously, using second blade screwdriver, carefully pry nameplate from front, one edge at a time, until entire nameplate is detached. Be careful not to scratch paint on front of door. Discard old nameplate.

4. Remove remnants of old tape from door panel before installing new nameplate.

5. Remove protective backing from tape on back side of new nameplate and install nameplate. Apply pressure to ensure that nameplate sticks to door panel.

6. Secure nameplate to access door with two nuts.

7. Close front access door and secure by turning key counterclockwise.

## INSTALLING UPGRADE STICKERS

The upgrade sticker included with the standard kit reads "HP 3000 Series 48 Model 30548B". Locate warranty, FCC compliance, and UL labels on lower-left rear of computer cabinet. Attach upgrade sticker to right of the FCC compliance label.

If the CPS-E PCA has been installed (Option 410 only), the kit also includes a sticker marked "CPS-E Installed". Attach this sticker near other labels on lower-left rear of cabinet.

# SYSTEM VERIFICATION

1. Close card cage door and secure by turning key counterclockwise.

2. Power up system by setting MAIN POWER and PROCESSOR ON/OFF switches to ON.

3. If new firmware has been added to the system, perform this step. Otherwise, skip to step 4. To verify newly installed firmware offline, execute CMP/system selftest by typing SELFTEST at CMP prompt (->). Refer to Section V of this manual for description of differences in selftest console messages between original and upgraded firmware. For additional selftest details, refer to HP 3000 Series 44 CMP/System Selftest Manual (P/N 30090-90005).

4. If memory has been added to system, run Pronto Memory Diagnostic to verify memory subsystem. Refer to HP 3000 Series 44 Pronto Memory Diagnostic Manual (P/N 30092-90001) for instructions.

# SELFTEST CONSOLE MESSAGES

SECTION V

The firmware upgrade procedures described in this manual upgrade the existing system firmware to MPE-V/E by replacing either the Control Program Store (CPS) PCA or the Control (CTL) and Prom Control Store (PCS) PCAs with a new CPS-E PCA (P/N 30090-60081). This section lists the selftest console messages for both original and upgraded firmware. The differences between the two are indicated by a box drawn around the affected part of the test in each of the listings. Series 42 and 48 computers shipped with a CPS PCA have the same selftest messages as those with a CPS-E PCA installed.

## CPS OR CPS-E INSTALLED

```
CMP TEST
   RAM test passed
   ROM test passed
   UART test passed

   CMP-CPU Interface
   SWITCH= 00
     test passed

   CPU TEST
   0000
   0400
   0800
   0C00
   1000
   1400
   1800
   1C00
   2000
   2400
    test passed
  CONTROL PANEL
  STATUS= 06  SYS DISC= NORM
    test passed

  ADCC TRANSMIT  test passed

  ADCC RECEIVE  test passed

  GIC TEST CHL= 11  test passed


  SYSTEM TEST passed
  ->
```

## PCS AND CTL INSTALLED

```
CMP TEST
   RAM test passed
   ROM test passed
   UART test passed

   CMP-CPU Interface
   SWITCH=00
     test passed

   CPU TEST
   0000
   0400
   0800
   0C00
   1000
   1400
   1800
   E000
   E400
   E800
    test passed
  CONTROL PANEL
  STATUS= 06 SYS DISC= NORM
    test passed

  ADCC TRANSMIT test passed

  ADCC RECEIVE test passed

  GIC TEST CHL=11  test passed


  SYSTEM TEST passed
  ->
```

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## READER COMMENT SHEET

**Series 39/40/42/44/48 Upgrade Manual**

**30400-90001 March 1984**

We welcome your evaluation of this manual. It is one of several that serve as a reference source for HP 3000 Computer Systems. Your comments and suggestions help us to improve our publications and will be reviewed by appropriate technical personnel. HP may make any use of the submitted suggestions and comments without obligation.

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